

May 29, 2001



Honorable Michael K. Powell
Chairman
Federal Communications Commission
The Portals
445 Twelfth St., SW
Washington, DC 20554

Re: ET Docket 98-153

Dear Chairman Powell,

The Boeing Company herein seeks to underscore its position in the above-referenced proceeding regarding the possible authorization by the Commission of ultra-wide band ("UWB") devices.

Boeing remains interested in the significant potential that UWB technology may offer for commercial and governmental applications. As Boeing has indicated previously, however, "Boeing's sole concern is that the practical applications of UWB technologies can be authorized only to the extent that they do not result in interference to existing spectrum uses, particularly those providing critical safety services such as GPS."¹

Recently, a broad range of companies submitted a joint letter to your office addressing the UWB proceeding.² Boeing expresses herein its agreement and support for the vast majority of the recommendations contained in the letter. For example, the signatories urged the Commission to authorize UWB devices only subject to specific authorizations, and not on an unlicensed basis pursuant to Part 15 of the Commission's Rules. The Commission should also identify those areas where further

¹ *Supplemental Comments of The Boeing Company*, ET Docket No. 98-153, at 10 (Apr. 23, 2001); *see also Comments of The Boeing Company*, ET Docket No. 98-153 (Sept. 12, 2000).

² *See Letter to Michael K. Powell, Chairman, FCC, from David A. Berg, Assistant General Counsel, Air Transport Association of America, et al.* (May 18, 2001).

testing is needed in order to ensure that UWB devices do not harm other important services.

Based on the results of technical studies to date, however, Boeing does not believe that it is necessary for the Commission to adopt a blanket prohibition on all types of UWB devices below 6 GHz.³ Instead, Boeing believes that some UWB applications may exist that could be licensed below 6 GHz without causing harmful interference to other services. Furthermore, it may be possible to utilize UWB technology in a controlled environment at sufficiently low power levels so that it will not pose a difficulty for other services, including safety of life services such as GPS. Boeing believes that if UWB proponents can demonstrate on a case-by-case basis that a specific UWB design and application can be utilized within a specific frequency range without causing harmful interference to incumbents, then the Commission should consider the issuance of a license for that specific service.

As mentioned previously, however, Boeing opposes any proposal to authorize UWB technologies on an unlicensed basis pursuant to Part 15 of the Commission's Rules. Unlicensed distribution of UWB equipment would give incumbent spectrum users and the Commission inadequate recourse to identify sources of harmful interference from UWB devices and arrange for their cessation. The need for a controlled licensing structure for UWB equipment is heightened by the fact that studies have shown that multiple UWB devices can aggregate interference in some instances, increasing the likelihood that harmful interference will result to other services.

In summary, Boeing stands by its previous position that:

- 1) If sufficient safeguards and conditions cannot be established to ensure the protection of GPS and other existing spectrum users from interference, then the Commission should not authorize the operation of UWB devices in restricted frequency bands.
- 2) If the Commission does authorize the operation of UWB devices, the Commission should not authorize them on an unlicensed basis pursuant to Part 15 of the Commission's Rules.
- 3) Instead, if the Commission does authorize UWB devices, it should do so only by adopting a conditional licensing structure that takes into account the specific frequencies utilized and the specific spectrum uses that are being considered.⁴

³ See *id.* at 2 (requesting a prohibition on UWB authorizations below 6 GHz).

⁴ See *Supplemental Comments of the Boeing Company* at 12.

Boeing hopes that this clarification will assist the Commission in reaching satisfactory and expeditious resolution of this matter.

Respectfully submitted,

/s/ Sheldon R. Bentley
Sheldon R. Bentley

cc: Magalie R. Salas, Secretary (filed electronically)